

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/530,884 Examiner: Wilkins, III

Filed: 4/11/2005

Inv.: Vittorio de Nora

## **AMENDMENT AND RESPONSE**

In response to the office action dated March 14, 2011, Applicant amends the referenced application as follows:

- 1. (originally presented) A cell for electrowinning aluminium from alumina, comprising:
- a metal-based anode having an outer part that has an electrochemically active oxide-based surface and that contains at least one of nickel, cobalt and iron;
- a fluoride-containing molten electrolyte in which the active anode surface is immersed and which is at a temperature below 940 °C., in particular in the range from 880° to 920 °C., and which consists of:
  - 5 to 14 weight % dissolved alumina;
  - 35 to 45 weight % aluminium fluoride;
    - 30 to 45 weight % sodium fluoride;
    - 5 to 20 weight % potassium fluoride;
    - 0 to 5 weight % calcium fluoride; and
    - 0 to 5 weight % in total of one or more further constituents.
- 2. (originally presented) The cell of claim 1, wherein the electrolyte contains 7 to 10 weight % alumina.
- 3. (originally presented) The cell of claim 1 or 2, wherein the electrolyte contains 38 to 42 weight % aluminium fluoride.
- 4. (amended herein) The cell of [any preceding] claim 1, wherein the electrolyte contains 34 to 43 weight % sodium fluoride.
- 5. (amended herein) The cell of [any preceding] claim  $\underline{1}$ , wherein the electrolyte contains 8 to 15 weight % potassium fluoride.
- 6. (amended herein) The cell of [any preceding] claim  $\underline{1}$ , wherein the electrolyte contains 2 to 4 weight % calcium fluoride.
- 7. (amended herein) The cell of [any preceding] claim  $\underline{1}$ , wherein the electrolyte contains 0 to 3 weight % of said one or more further constituents.

Zew